

### REMARKS

Applicants appreciate the thorough examination of the present application as evidenced by the Office Action of December 26, 2007 (hereinafter "Office Action"). In response, Applicants have amended independent Claims 1, 27, and 32 as indicated above to clarify the relationship between the application flows and access sessions recited therein. Applicants have also amended Claim 28 as indicated above and discussed in detail below to address the indefiniteness rejection thereof. Support for these amendments can be found, for example, at Page 22, lines 3-17 and Figure 6 of the present application. No new matter has been added.

Accordingly, Applicants hereby request further consideration of the application in view of the amendments above and the comments that follow.

#### The Section 112 Rejections

Claim 28 stands rejected under 35 USC §112, second paragraph, as being indefinite for reciting a system claim dependent upon a method claim. *See* Office Action, page 2. In response, Applicants have amended Claim 28 to correctly recite "[a] method according to Claim 27" (*emphasis added*). No new matter has been added. Accordingly, Applicants respectfully request withdrawal of the indefiniteness rejection of Claim 28.

#### The Section 103 Rejections

Claims 1-44 stand rejected under 35 USC §103(a) as being unpatentable over 'DSL Evolution—Architecture Requirements for the Support of QoS Enabled IP Services', Revision 8 (hereinafter "DSL Evolution") and U.S. Patent 7,073,055 to Freed et al. (hereinafter "Freed"). This rejection is respectfully traversed.

Amended Claim 1, for example, recites, in part:

**a first subsystem that is configured to manage** QoS, session authentication and/or bandwidth allocation for **an access session** from the CPN, wherein the access session comprises a connection between the NSP and/or ASP and the CPN; and

**a second subsystem that is configured to manage** QoS, session authentication and/or bandwidth allocation for **an application flow** from

the CPN, wherein the application flow comprises a set of data packets associated with one of a plurality of applications provided via the access session between the NSP and/or ASP and the CPN. (*Emphasis added*).

Thus, according to exemplary embodiments, a first subsystem is configured to manage QoS/authentication/bandwidth allocation between a NSP/ASP and a CPN for a particular access session, and a second subsystem is configured to manage QoS/authentication/bandwidth allocation for the set of packets associated with a particular application flow provided via the access session. As described in the present application, an access session is defined as a connection between a Network Service Provider (NSP) and/or Application Service Provider (ASP) and a Customer Premises Network (CPN), while an application flow is the set of packets associated with a particular application, such as a video conferencing session, VoIP call, etc. *See* Specification, Pages 12-14. To manage an application flow, "[r]ate limits can be applied to each of the applications to ensure that a single application cannot starve out all other applications". Specification, Page 22, lines 7-8. *See also* Specification, Figure 6 and Table 1.

The Office Action asserts that Freed discloses all of the recitations of Claim 1 with the exception of a plurality of subsystems. *See* Office Action, Pages 2-3. As such, the Office Action relies on User1 and User2, illustrated in Figure 2 of DSL Evolution, as providing first and second subsystems. *See* Office Action, Page 3.

As an initial matter, Applicants note that the Office Action fails to address all of the recitations of Claim 1 in its rejection of Claim 1. *See* Office Action, Page 3. In particular, the Office Action asserts that "Freed discloses a system that is configured to manage QoS...session authentication and/or bandwidth allocation...for an access session", and that "DSL Evolution teaches a first subsystem...and a second subsystem...that is configured to manage QoS, session authentication and/or bandwidth allocation for an access session". Office Action, Page 3 (*emphasis added*). However, the Office Action does not rely on Freed and/or DSL Evolution as disclosing a system and/or subsystem that is configured to manage QoS/authentication/bandwidth allocation "for an application flow", as recited by original Claim 1.

Indeed, nowhere do the cited portions of Freed disclose or suggest managing QoS/authentication/bandwidth allocation for an application flow. Rather, Freed describes a system where a network service provider (such as the ISP 156 of Figure 5) can identify and authenticate a user network entity (such as customer premises equipment (CPE) 18 of Figure 5), and can dynamically configure a network connection between the user network entity and the data network accordingly. *See* Freed, Col. 13, line 18 to Col. 14, line 30 and Figure 5. For example, as described in Freed:

At step 226, a communication link between the user network entity and a data network is established...the established communication link is configured based on the network service configuration parameters dynamically specified in the first message. For example, if the first message specified a QoS configuration parameter set...the communication link is configured based on the specified QoS set.

Freed, Col. 21, lines 11-19. In other words, in the system of Freed, the network service provider/ISP can configure a communication link between the authenticated user network entity/CPE and the data network using network service parameters specified in a message from the user network entity. *See also*, Freed, Fig. 10. However, the cited portions of Freed do not disclose or suggest that the system can be configured to provide specific network service parameters "for an application flow", as recited by Claim 1. In other words, although Freed may disclose managing QoS/bandwidth settings for a communication link between the network and the CPE, the cited portions of Freed fail to disclose or suggest managing such settings for a particular application flow provided via the communication link.

Nor does DSL Evolution disclose or suggest these recitations. For example, the Office Action asserts that Figure 2 of DSL Evolution discloses first and second subsystems in its illustration of User1 and User2 as part of the customer premises network (CPN). *See* Office Action, Page 3. However, in describing Figure 2, DSL Evolution merely notes that "the figure [2] shows many-to-many access through a common Regional/Access network...to simultaneously provide an Application Service<sub>1</sub> between an ASP Network<sub>1</sub> and a User<sub>1</sub>...and...a Network Service<sub>2</sub> between NSP Network<sub>2</sub> and User<sub>2</sub>." DSL Evolution, Page 7, lines 5-7. As such, the cited portion of DSL Evolution does not disclose or suggest managing application flows, but rather, illustrates respective access sessions between the ASP

and User1 and between the NSP and User2. *See* DSL Evolution, Figure 2. Applicants further note that Claim 1 has been amended to clearly define the distinction between the access sessions and application flows recited therein.

Thus, Applicants submit that neither Freed nor DSL Evolution disclose or suggest at least the recitations of Claim 1 highlighted above. Accordingly, Applicants submit that Claim 1 is patentable over the combination of Freed and DSL Evolution for at least these reasons. Claim 27 includes method recitations for similarly managing bandwidth and/or QoS "for an application flow", and is thus patentable for at least similar reasons. Claim 32 includes computer program product recitations corresponding to the system of Claim 1, and as such, is also patentable for at least similar reasons. Also, dependent Claims 2-26, 28-31, and 33-44 are patentable at least per the patentability of Claims 1, 27, and 32 from which they depend.

#### **Many of the Dependent Claims Are Separately Patentable**

As discussed above, Applicants note that the dependent claims are patentable at least per the patentability of independent Claims 1, 27, and 32 from which they depend. Moreover, Applicants submit that various dependent Claims are separately patentable.

For example, Claims 2, 3, 4, and 5 respectively recite "RAN to RG" access session and/or application flow message generators configured to send particular messages "from the RAN to the RG" to notify the RG of bandwidth and/or QoS information. Likewise, Claims 6 and 7 recite "RG to RAN" access session and/or application flow message generators configured to send particular messages "from the RG to the RAN" to obtain from the RG bandwidth and/or QoS information stored in the RAN. The Office Action asserts that the same portions of DSL Evolution (in particular, Sections 4.2.6.2 and 4.2.7.2 and Figs. 14, 16, and 21) as disclose all of the recitations of Claims 2-7. *See* Office Action, Pages 3-5.

However, Applicants respectfully submit that nowhere do the cited portions of DSL Evolution disclose or suggest sending the specific messages and/or information recited in Claims 2-7 between the RAN and the RG. In particular, with reference to Claims 2-5, the cited portions of DSL Evolution do not disclose or suggest notifying the RG of: 1) new

bandwidth/QoS information available for an access session, 2) new bandwidth/QoS information available for an application flow, 3) access session bandwidth/QoS settings stored in the RAN, and/or 4) application flow bandwidth/QoS settings stored in the RAN. *See* DSL Evolution, Sections 4.2.6.2 and 4.2.7.2 and Figs. 14, 16, and 21. Likewise, with reference to Claims 6 and 7, the cited portions of DSL Evolution do not disclose or suggest obtaining access session bandwidth/QoS settings and/or application flow bandwidth/QoS settings from the RG. *Id.* Accordingly, Applicants note that, while the cited portions of DSL Evolution may generally disclose the network configuration recited by the pending claims, nowhere do the cited portions of DSL Evolution disclose or suggest the specific messages and/or information transmitted between the RG and the RAN recited by Claims 2-7. Thus, Applicants submit that Claims 2-7 are separately patentable for at least the above reasons. Claims 33-38 respectively include similar recitations, and are thus separately patentable for at least similar reasons. Claim 28 includes similar recitations to Claims 6 and 7, and is therefore also separately patentable for at least similar reasons. If the Examiner continues to maintain the rejections of these claims based on DSL Evolution, Applicants respectfully request that the Examiner point out specific portions of DSL Evolution, by page and line number, that disclose or suggest the recitations of these claims.

Also, Claims 8 and 9 recite message generators that send messages from the RAN to the ASP to indicate to the ASP "what RAN resources are authorized for an access session", and "that an application flow control request from the ASP to the RAN has been accomplished successfully", respectively. The Office Action asserts that Sections 5.3, 5.3.1, and 5.3.2 of DSL Evolution disclose these recitations. *See* Office Action, Page 5. However, as noted above, nowhere do the cited portions of DSL Evolution disclose or suggest sending specific messages from the RAN to the ASP to provide the information described in Claims 8 and 9. *See* DSL Evolution, Sections 5.3, 5.3.1, and 5.3.2 and Figure 21. Thus, Applicants submit that Claims 8 and 9 are separately patentable for at least these reasons. Claims 39 and 40 respectively include similar recitations, and are thus separately patentable for at least similar reasons. Claim 29 also includes similar recitations to Claims 8 and 9, and is therefore also separately patentable for at least similar reasons.

In re: Anschutz et al.  
Application No.: 10/716,051  
Filed: November 18, 2003  
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**Conclusion**

Accordingly, in light of the above amendments and remarks, Applicants respectfully submit that all of the pending claims are now in condition for allowance. Thus, Applicants respectfully request allowance of the pending claims and passing the application to issue. Applicants encourage the Examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

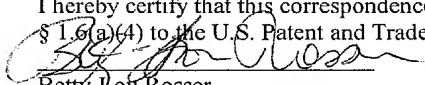


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Date of Signature: March 25, 2008